

## Refine Search

### Search Results -

Terms	Documents
(amyotrophic or creatine) and L13	2

**Database:** US Pre-Grant Publication Full-Text Database  
 US Patents Full-Text Database  
 US OCR Full-Text Database  
 EPO Abstracts Database  
 JPO Abstracts Database  
 Derwent World Patents Index  
 IBM Technical Disclosure Bulletins

**Search:** L27  **Refine Search**  
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### Search History

**DATE:** Monday, April 17, 2006 [Printable Copy](#) [Create Case](#)

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set

*DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR*

<u>L27</u>	(amyotrophic or creatine) and l13	2	<u>L27</u>
<u>L26</u>	amyotrophic and l16	0	<u>L26</u>
<u>L25</u>	amyotrophic and (wast\$ same muscle)	8	<u>L25</u>
<u>L24</u>	amyotrophic and L23	1	<u>L24</u>
<u>L23</u>	creatine and (wast\$ same muscle)	244	<u>L23</u>
<u>L22</u>	creatine and (treat\$ same amyotrophic)	17	<u>L22</u>

*DB=PGPB,USPT; PLUR=YES; OP=OR*

<u>L21</u>	(amyotrophic or creatine).clm. and l16	26	<u>L21</u>
<u>L20</u>	(amyotrophic or creatinine).clm. and l16	6	<u>L20</u>
<u>L19</u>	6,706,764.pn.	1	<u>L19</u>
<u>L18</u>	(amyotrophic or creatinine).clm. and l16	2	<u>L18</u>
<u>L17</u>	(amyotrophic or creatinine) and l16	20	<u>L17</u>
<u>L16</u>	kaddurah-daouk.in.	34	<u>L16</u>
<u>L15</u>	amyotrophic and l13	1	<u>L15</u>

<u>L14</u>	creatinine and l13	0	<u>L14</u>
<u>L13</u>	5091404.pn. or 5492930.pn. or 5741661.pn.	3	<u>L13</u>
<u>L12</u>	amyotrophic and l6	11	<u>L12</u>
<i>DB=PGPB; PLUR=YES; OP=OR</i>			
<u>L11</u>	creatinine and L10	7	<u>L11</u>
<u>L10</u>	amyotrophic and (wast\$ same muscle)	224	<u>L10</u>
<i>DB=USPT; PLUR=YES; OP=OR</i>			
<u>L9</u>	creatinine and l8	0	<u>L9</u>
<u>L8</u>	amyotrophic and (wast\$ same muscle)	134	<u>L8</u>
<u>L7</u>	creatinine and (wast\$ same muscle)	59	<u>L7</u>
<u>L6</u>	creatinine and wast\$	764	<u>L6</u>
<u>L5</u>	5767159.pn. and creatinine	1	<u>L5</u>
<u>L4</u>	L3	112	<u>L4</u>
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L3</u>	creatine and (treat\$ same amyotrophic)	326	<u>L3</u>
<u>L2</u>	creatine same amyotrophic	28	<u>L2</u>
<i>DB=DWPI; PLUR=YES; OP=OR</i>			
<u>L1</u>	kaddurah-daouk.in.	29	<u>L1</u>

END OF SEARCH HISTORY

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NEWS 5 JAN 13 New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to INPADOC  
NEWS 6 JAN 17 Pre-1988 INPI data added to MARPAT  
NEWS 7 JAN 17 IPC 8 in the WPI family of databases including WPIFV  
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NEWS 12 FEB 27 New STN AnaVist pricing effective March 1, 2006  
NEWS 13 FEB 28 MEDLINE/LMEDLINE reload improves functionality  
NEWS 14 FEB 28 TOXCENTER reloaded with enhancements  
NEWS 15 FEB 28 REGISTRY/ZREGISTRY enhanced with more experimental spectral property data  
NEWS 16 MAR 01 INSPEC reloaded and enhanced  
NEWS 17 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes  
NEWS 18 MAR 08 X.25 communication option no longer available after June 2006  
NEWS 19 MAR 22 EMBASE is now updated on a daily basis  
NEWS 20 APR 03 New IPC 8 fields and IPC thesaurus added to PATDPAFULL  
NEWS 21 APR 03 Bibliographic data updates resume; new IPC 8 fields and IPC thesaurus added in PCTFULL  
NEWS 22 APR 04 STN AnaVist \$500 visualization usage credit offered  
NEWS 23 APR 12 LINSPEC, learning database for INSPEC, reloaded and enhanced  
NEWS 24 APR 12 Improved structure highlighting in FQHIT and QHIT display in MARPAT  
NEWS 25 APR 12 Derwent World Patents Index to be reloaded and enhanced during second quarter; strategies may be affected  
  
NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005. V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT <http://download.cas.org/express/v8.0-Discover/>  
  
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function in relation to oral and parenteral vitamin E therapy, and of **creatinine** studies as an index to the effect of vitamin E administration. It is pointed out that the concept of "degenerative disease" has become meaningless, and that the discovery of the specific vitamin deficiency in amyotrophic lateral sclerosis opens up the field of other "degenerative diseases" to investigation. The wheat-germ oil was tried by Denker on the theory, not substantiated, that there might be a therapeutic agent in the vitamin E complex which was not present in  $\alpha$ -tocopherol itself.

=> treat? (s) amyotrophic

L3 6758 TREAT? (S) AMYOTROPHIC

=> creatinine and 13

L4 17 CREATININE AND L3

=> dup rem 14

PROCESSING COMPLETED FOR L4

L5 10 DUP REM L4 (7 DUPLICATES REMOVED)

=> t ti 15 1-10

L5 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1

TI Preparation of piperazinylpyridine derivatives as 5-HT3 receptor antagonists, pharmaceutical compositions containing them, and their uses

L5 ANSWER 2 OF 10 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

TI Medical agent useful for treating diseases e.g. irritable bowel syndrome, bladder dysfunction and schizophrenia, comprises piperazinyl pyridine derivative as active ingredient.

L5 ANSWER 3 OF 10 MEDLINE on STN DUPLICATE 2

TI Prognostic factors for survival in **amyotrophic** lateral sclerosis patients **treated** with riluzole.

L5 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3

TI Orthomolecular sulfo-adenosylmethionine derivatives with antioxidant properties

L5 ANSWER 5 OF 10 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

TI Targeting cellular energy production in neurological disorders.

L5 ANSWER 6 OF 10 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

TI Nutritional issues and supplements in amyotrophic lateral sclerosis and other neurodegenerative disorders.

L5 ANSWER 7 OF 10 MEDLINE on STN DUPLICATE 4

TI Disturbance of the water and electrolyte balance during high-dose interferon treatment.

L5 ANSWER 8 OF 10 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

TI Laboratory and clinical studies on HBK.

L5 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

TI The effect of tocopherol on creatinuria

L5 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

TI Further progress in the **treatment** of **amyotrophic**

lateral sclerosis with the tocopherols (synthetic vitamin E)

=> d ibib abs 15 1-9

L5 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:888185 CAPLUS

DOCUMENT NUMBER: 143:229884

DOCUMENT NUMBER: 11022901  
TITLE: Preparation of piperazinylpyridine derivatives as 5-HT3 receptor antagonists, pharmaceutical compositions containing them, and their uses

INVENTOR(S): Compositions containing them, and their uses  
Sato, Michitaka; Matsui, Teruaki; Asakarasu, Akira;  
Hayashi, Hiroyuki; Araki, Seiichi; Tamaoki, Masaru;  
Takahashi, Nobuyuki; Yamamoto, Toshiko; Yamamoto,  
Norio; Ogawa, Chisato

PATENT ASSIGNEE(S): Teikoku Hormone Mfg. Co., Ltd., Japan

APPLICANT ASSIGNEE(S): TELKOKA KOKINSEI KIG., Ltd., Jpn.  
SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

SOURCE: **SPN: ROKAI 103**  
CODEN: **JKXXXAF**

DOCUMENT TYPE: Patent

DOCUMENT TYPE: Patent  
LANGUAGE: Japanese

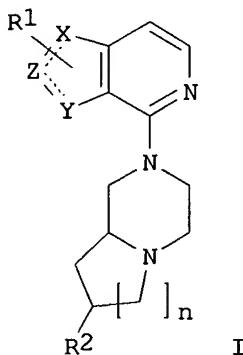
LANGUAGE: 32  
FAMILY ACC NUM COUNT: 1

FAMILY ACC. NUM. : CC  
PATENT INFORMATION :

#### PATENT INFORMATION:

PATENT NO. \_\_\_\_\_ KIND \_\_\_\_\_ DATE \_\_\_\_\_

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005225845	A2	20050825	JP 2004-39056	20040216
PRIORITY APPLN. INFO.:			JP 2004-39056	20040216
OTHER SOURCE(S):	MARPAT	143:229884		
GT				



AB The derivs. I (R1 = H, halo, lower alkoxy; R2 = H, halo, lower alkoxy, phenyl-lower alkoxy; n = 1, 2; X, Y = C, O, S; Z = C; X and/or Y = C and the other = O, S) or their pharmaceutically acceptable salts are prepared. Also claimed are 5-HT3 receptor antagonists having agonistic action on 5-HT1A receptors containing I (salts), pharmaceutical compns. containing the antagonists and carriers, and agents containing the antagonists for treatment of irritable bowel syndrome, anxiety, dysuria, parkinsonism, neuropathy, COPD, glaucoma, etc. Thus, i.p. administration of 7-[(8aS)-octahydronaphthalene-1,2-a]pyrazin-2-yl]furo[2,3-c]pyridine (II; preparation given) to rats induced lower lip retraction and flat body posture. II also suppressed 5-hydroxytryptamine **creatine** sulfate-induced Bezold-Jarisch reflex in rats. Tablets containing I were also formulated.

L5 ANSWER 2 OF 10 WPIIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2005-651950 [67] WPIDS

DOC. NO. CPI: C2005-196904  
 TITLE: Medical agent useful for treating diseases e.g. irritable bowel syndrome, bladder dysfunction and schizophrenia, comprises piperazinyl pyridine derivative as active ingredient.  
 DERWENT CLASS: B05  
 INVENTOR(S): ARAKI, S; ASAGARASU, A; HAYASHI, H; MATSUI, T; OGAWA, C; SATO, M; TAKAHASHI, N; TAMAOKI, K; YAMAMOTO, N; YAMAMOTO, Y  
 PATENT ASSIGNEE(S): (TEIK) TEIKOKU HORMONE MFG CO LTD  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2005239578	A	20050908 (200567)*			62

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2005239578	A	JP 2004-48344	20040224

PRIORITY APPLN. INFO: JP 2004-48344 20040224  
 AN 2005-651950 [67] WPIDS  
 AB JP2005239578 A UPAB: 20060116  
 NOVELTY - A medical agent having serotonin-1A (5-HT1A) agonistic and serotonin-3 (5-HT3) antagonistic effect, comprises piperazinyl pyridine derivative (I) or its salt as an active ingredient.  
 DETAILED DESCRIPTION - A medical agent having serotonin-1A (5-HT1A) agonistic and serotonin-3 (5-HT3) antagonistic effect, comprises piperazinyl pyridine derivative of formula (I) or its salt as an active ingredient.  
 A = heterocyclic ring of benzene optionally substituted with halogen, lower alkyl, phenyl, hydroxy, phenyl lower alkoxy optionally substituted lower alkoxy with halo, amino, lower alkyl amino, di-alkyl amino, lower alkyl thio, lower alkyl sulfinyl, amino sulfonyloxy or optionally substituted pyridine with halo or lower alkyl, furan and thiophene;  
 R1 = hydrogen, halogen or lower alkyl;  
 R2 = H, lower alkyl, phenyl lower alkyl optionally substituted with halo, lower alkyl or lower alkoxy, amino lower alkyl or phenyl cycloalkyl in which phenyl is optionally substituted with halo, lower alkyl or lower alkoxy;  
 R2+R3 = form one group of optionally substituted pyrrolidone or piperidine ring optionally substituted with hydroxyl, lower alkoxy or phenyl lower alkoxy; and  
 R4 = H or lower alkyl  
 INDEPENDENT CLAIMS are also included for the following: (i) a pharmaceutical composition, which contains the piperazinyl pyridine derivative (I) or its salt as an active ingredient and a carrier; and (ii) a therapeutic agent, which contains the piperazinyl pyridine derivative (I) or its salt as an active ingredient.  
 ACTIVITY - Gastrointestinal-Gen.; Antiinflammatory; Uropathic; Cytostatic; Antidepressant; Nootropic; Neuroprotective; Neuroleptic; Tranquilizer; Vasotropic; Cerebroprotective; Antiparkinsonian; Respiratory-Gen.; Antiaddictive; Ophthalmological; CNS-Gen.; Antiemetic; Anticonvulsant; Analgesic; Eating-Disorders-Gen.; Endocrine-Gen.; Antitussive; Relaxant; Hypotensive; Antiallergic. No suitable test details are given.  
 MECHANISM OF ACTION - Serotoninergic-1A; Antiserotonin-3 (claimed). The 5-HT3 receptor antagonist effect of 7-chloro-1-piperazine-1-yl

isoquinoline (test compound) was evaluated using SD-type male rat. The rat was anesthetized and a catheter was inserted into the artery. 5-hydroxytryptamine **creatinine** sulfate (300  $\mu$ g/kg) was administered intravenously. The bradycardia reaction was observed. The test compound was intravenously administered after serotonin administration. The transient bradycardia was initiated for 10 minutes and the suppression of bradycardia expression was evaluated. The test compound was found to reduce the bradycardia expression at a rate of 96.8% and at a concentration of 1 mg/kg.

USE - For **treating** and preventing diseases e.g. irritable bowel syndrome, stress urinary incontinence, urinary-bladder dysfunction, prostate cancer, chronic prostatitis, depression, schizophrenia, Alzheimer's disease, obsessive compulsive disorder, cognitive impairment, ischemia due to acute cerebral apoplexy, Huntington's disease, Parkinson's disease, spinal cord injury, **amyotrophic** lateral sclerosis, fetus hypoxidosis, dyspepsia, reflux esophagitis, cocaine addiction, retinal disease, apnea, panic syndrome, tremor, short-term-memory failure, nausea, epilepsy, alcoholism, somnolence, pain, eating disorder, sexual dysfunction, obesity, juvenile autism, cough, Fascia syndrome, neuropathy, agitation, tendopathy, aggression, periarthropathy, premenstrual tension syndrome, essential hypertension, spasm, peptic ulcer, mania, gastritis, migraine, chronic polyarthritis, local osteochondritis-dissencans, osteonecrosis, collagen disease, chronic obstructive pulmonary disease, adult respiratory distress syndrome, seronegativity spinal-cord arthritis, sarcoidosis arthritis, laryngospasm, lung vasculitis, lung granuloma, allergic alveolitis, chronic fatigue syndrome and glaucoma (claimed).

ADVANTAGE - The agent has excellent serotonin-1A agonistic and serotonin-3 antagonistic effect.

Dwg.0/0

L5	ANSWER 3 OF 10	MEDLINE on STN	DUPLICATE 2
ACCESSION NUMBER:	2005378372	MEDLINE	
DOCUMENT NUMBER:	PubMed ID: 16036424		
TITLE:	Prognostic factors for survival in <b>amyotrophic</b> lateral sclerosis patients <b>treated</b> with riluzole.		
AUTHOR:	Paillisse C; Lacomblez L; Dib M; Bensimon G; Garcia-Acosta S; Meininger V		
CORPORATE SOURCE:	Service de Pharmacologie Clinique, Hopital de la Pitie-Salpetriere, Paris, France.		
SOURCE:	Amyotrophic lateral sclerosis and other motor neuron disorders : official publication of the World Federation of Neurology, Research Group on Motor Neuron Diseases, (2005 Mar) Vol. 6, No. 1, pp. 37-44. Journal code: 100964775. ISSN: 1466-0822.		
PUB. COUNTRY:	England: United Kingdom		
DOCUMENT TYPE:	(CLINICAL TRIAL) Journal; Article; (JOURNAL ARTICLE) (RANDOMIZED CONTROLLED TRIAL)		
LANGUAGE:	English		
FILE SEGMENT:	Priority Journals		
ENTRY MONTH:	200508		
ENTRY DATE:	Entered STN: 20050723 Last Updated on STN: 20050831 Entered Medline: 20050830		

AB The objective of this study was to identify prognostic factors for survival in amyotrophic lateral sclerosis from a large prospective observational study performed in France. The study included a cohort of 2069 patients fulfilling broad entry criteria treated with riluzole. Over 100 demographic, biological, clinical and quality-of-life variables were monitored and assessed for their effect on survival. Patients were randomized post hoc into two groups: one group (two-thirds of the patients) to generate the prognostic models and one group (one-third of

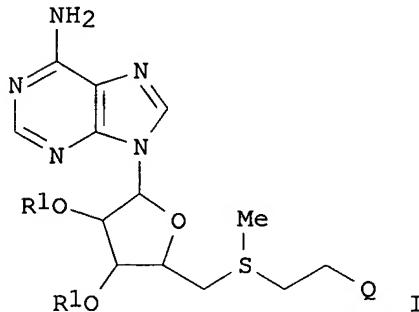
the patients) to validate the resulting models. Thirteen variables were found to affect survival independently and were used to construct a survival prediction score, RL401. These included age, disease duration, slow vital capacity, intensity of tiredness (visual analogue scale), number of body levels with spasticity, atrophy and/or fasciculations, cough, distal muscle strength, household income, depression and two biological parameters, plasma **creatinine** levels and neutrophil counts. A simplified score, RL401S, was constructed, designed to be easy to use and interpret. The predictive powers of the two scores were similar.

L5 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2003:319452 CAPLUS  
 DOCUMENT NUMBER: 138:314630  
 TITLE: Orthomolecular sulfo-adenosylmethionine derivatives with antioxidant properties  
 INVENTOR(S): Wilburn, Michael D.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 17 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003078231	A1	20030424	US 2001-886612	20010622
PRIORITY APPLN. INFO.:			US 2001-886612	20010622
OTHER SOURCE(S):	MARPAT	138:314630		

GI



AB Disclosed are orthomol. sulfo-adenosylmethionine derivative compds., compns., and their uses for effecting a biol. activity in an animal, such as neurochem. activity; liver biol. activity; heart and artery function; cartilage, bone and joint health; stomach and/or intestinal lining resistance to ulceration; immune function; cell membrane integrity; and pain and inflammation. The compds. of the present invention are further useful for preventing or treating diseases or conditions; treating viral infections, infectious diseases, leukemia, and obesity; and reducing the risk of Sudden Infant Death Syndrome in an animal. The compds. of the present invention are I (R1 = H, C1-C10 alkyl, C2-C10 alkenyl or alkynyl, -C(O)R2; R2 = C1-C10 alkyl, C2-C10 alkenyl or alkynyl; Q = -C(NH3)C(O)AX, -C(COOH)NHX; A = O, N; X = a defined reaction product) or pharmaceutically acceptable salt, ester or solvate thereof.  $\alpha$ -(S-adenosylmethionine)-O-tocopherol was prepared from N-Acetyl-S-benzyl-L-homocysteine,  $\alpha$ -tocopherol, and 5'-O-p-Tolylsulfonyladenosine.

L5 ANSWER 5 OF 10 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2003434188 EMBASE

TITLE: Targeting cellular energy production in neurological disorders.

AUTHOR: Baker S.K.; Tarnopolsky M.A.

CORPORATE SOURCE: Dr. M.A. Tarnopolsky, Department of Medicine, McMaster University, Hamilton, Ont. L8N 3Z5, Canada.  
tarnopol@mcmaster.ca

SOURCE: Expert Opinion on Investigational Drugs, (2003) Vol. 12, No. 10, pp. 1655-1679. .

Refs: 330

ISSN: 1354-3784 CODEN: EOIDER

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 008 Neurology and Neurosurgery  
029 Clinical Biochemistry  
030 Pharmacology  
037 Drug Literature Index  
038 Adverse Reactions Titles  
052 Toxicology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 13 Nov 2003  
Last Updated on STN: 13 Nov 2003

AB The concepts of energy dysregulation and oxidative stress and their complicated interdependence have rapidly evolved to assume primary importance in understanding the pathophysiology of numerous neurological disorders. Therefore, neuroprotective strategies addressing specific bioenergetic defects hold particular promise in the **treatment** of these conditions (i.e., **amyotrophic** lateral sclerosis, Huntington's disease, Parkinson's disease, Friedreich's ataxia, mitochondrial cytopathies and other neuromuscular diseases), all of which, to some extent, share 'the final common pathway' leading to cell death through either necrosis or apoptosis. Compounds such as creatine monohydrate and coenzyme Q(10) offer substantial neuroprotection against ischaemia, trauma, oxidative damage and neurotoxins. Miscellaneous agents, including  $\alpha$ -lipoic acid,  $\beta$ -OH- $\beta$ -methylbutyrate, riboflavin and nicotinamide, have also been shown to improve various metabolic parameters in brain and/or muscle. This review will highlight the biological function of each of the above mentioned compounds followed by a discussion of their utility in animal models and human neurological disease. The balance of this work will be comprised of discussions on the therapeutic applications of creatine and coenzyme Q(10).

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ACCESSION NUMBER: 2005221314 EMBASE

TITLE: Nutritional issues and supplements in amyotrophic lateral sclerosis and other neurodegenerative disorders.

AUTHOR: Cameron A.; Rosenfeld J.

CORPORATE SOURCE: Dr. J. Rosenfeld, Carolinas Neuromuscular/ALS Center, 1000 Blythe Boulevard, Charlotte, NC 28203, United States.  
jrosenfeld@carolinas.org

SOURCE: Current Opinion in Clinical Nutrition and Metabolic Care, (2002) Vol. 5, No. 6, pp. 631-643. .

Refs: 107

ISSN: 1363-1950 CODEN: COCMF3

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 008 Neurology and Neurosurgery

029 Clinical Biochemistry  
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 9 Jun 2005

Last Updated on STN: 9 Jun 2005

AB Purpose of review: Aggressive nutritional intervention has become a cornerstone of treatment for many patients with neuromuscular diseases, in particular, motor neuron disease. Malnutrition is a common problem among patients with amyotrophic lateral sclerosis. Over the past decade, the recognition of nutrition as an independent, prognostic factor for survival and disease complications in **amyotrophic** lateral sclerosis has illustrated the importance of individualized nutritional management in symptomatic **treatment**. Paramount issues for nutritional management in **amyotrophic** lateral sclerosis include caloric supplementation, the diagnosis/**treatment** of dysphagia, and the timing/safety/efficacy of percutaneous endoscopic gastrostomy placement. Recent findings: In addition, many amyotrophic lateral sclerosis patients self-medicate with a variety of vitamins, herbs, and other dietary supplements. Outcome-based research for the use of nutraceuticals and functional foods in the **treatment** and prevention of **amyotrophic** lateral sclerosis and other neuromuscular diseases is in its early stages. In the past year, however, several interesting papers have been published that lend support to the use of dietary supplements as primary **treatments** for **amyotrophic** lateral sclerosis and other motor neuron disorders. Summary: Common or overlapping etiologies in disparate neurodegenerative diseases have led to the promise that optimal nutritional care and the appropriate use of dietary supplements in amyotrophic lateral sclerosis will have implications for the nutritional management of other degenerative conditions such as Parkinson's, Alzheimer's, and Huntington's disease. Furthermore, evidence supporting the efficacy of dietary supplements in **amyotrophic** lateral sclerosis may lend clues to the **treatment** of other neuromuscular disorders such as the muscular dystrophies. .COPYRGT. 2002 Lippincott Williams & Wilkins.

L5 ANSWER 7 OF 10 MEDLINE on STN DUPLICATE 4  
ACCESSION NUMBER: 90257414 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 2341751  
TITLE: Disturbance of the water and electrolyte balance during high-dose interferon treatment.  
AUTHOR: Farkkila A M; Iivanainen M V; Farkkila M A  
CORPORATE SOURCE: Department of Neurology, University Hospital, Helsinki, Finland.  
SOURCE: Journal of interferon research, (1990 Apr) Vol. 10, No. 2, pp. 221-7.  
Journal code: 8100396. ISSN: 0197-8357.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199006  
ENTRY DATE: Entered STN: 19900720  
Last Updated on STN: 19960129  
Entered Medline: 19900625

AB Ten patients with **amyotrophic** lateral sclerosis were **treated** during 5 consecutive days with intravenous infusion of high-dose human leukocyte interferon-alpha (IFN-alpha) or placebo in a single-blinded randomized trial. To assess the effect of IFN on the water and electrolyte balance, serum electrolytes, **creatinine**, and

antidiuretic hormone as well as urine excretion of electrolytes, aldosterone, and cortisol were measured before the trial and during the fourth day of IFN infusion. Compared with placebo the results showed a significant reduction of the mean serum calcium level (from 2.28 +/- 0.03 mmole/liter to 2.01 +/- 0.06 mmole/liter; p less than 0.01), that of the mean serum osmolality (from 296 +/- 9.9 mosm/kgH2O to 281 +/- 2.5 mosm/kgH2O; p less than 0.05) and that of the mean urinary excretion of magnesium (from 5.32 +/- 2.04 mmoles/liter to 2.65 +/- 1.68 mmoles/liter; p less than 0.05). Careful observation of water and electrolyte balance is emphasized during high-dose IFN treatment.

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ACCESSION NUMBER: 86134373 EMBASE  
DOCUMENT NUMBER: 1986134373  
TITLE: Laboratory and clinical studies on HBK.  
AUTHOR: Okamoto Y.; Maehara K.; Mase K.; et al.  
CORPORATE SOURCE: First Department of Internal Medicine, Kansai Medical University, Moriguchi, Osaka, Japan  
SOURCE: Chemotherapy, (1986) Vol. 34, No. SUPPL. 1, pp. 247-260. .  
CODEN: NKRZAZ  
COUNTRY: Japan  
DOCUMENT TYPE: Journal  
FILE SEGMENT: 038 Adverse Reactions Titles  
037 Drug Literature Index -  
LANGUAGE: Japanese  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 10 Dec 1991  
Last Updated on STN: 10 Dec 1991

AB HBK, a newly developed derivative of dibekacin, was examined on its antibacterial activity in vitro, as well as on its clinical usefulness. The results obtained were as follows: 1) Antibacterial activity in vitro: MIC of HBK against bacterial strains isolated from clinical infection foci were estimated and compared with those of amikacin (AMK) and gentamicin (GM). Among the three antibiotics examined, HBK was most active against *P. morganii* strains, while HBK was found to be least active against *Serratia* strains. Some of the GM-resistant strains of *S. aureus*, *E. coli*, and *K. pneumoniae* showed considerable sensitivity to HBK, but, in general, strains of these species and those of *P. mirabilis* and *P. rettgeri* showed sensitivity to the three aminoglycosides in the following order: GM > HBK > AMK. The three antibiotics showed similar sensitivity distribution as to the strains of *P. aeruginosa*, *E. cloacae* or those of *C. freundii*. 2) Clinical trials: Twelve patients, in total, with infections, all having some underlying diseases, were treated with HBK. Nine (RTI 3, UTI 5, phlegmon 1) of them were treated with HBK 50.apprx.100 mg x 1.apprx.2/day intramuscularly: Six of them responded well to the therapy, while the remaining 3 failed, i.e. each one having pneumonia complicating amyotrophic lateral sclerosis, RTI complicating lung cancer, and UTI with indwelling catheter, respectively. Further, 3 cases (RTI 2, BTI 1) were administered HBK 100 mg x 2/day by intravenous drip infusion: One of them, a patient with acute exacerbation of chronic bronchitis complicating cerebral infarction, responded well to the treatment. None of the cases showed clinical side effects. As to the abnormal laboratory findings attributable to the drug, 1 patient with renal impairment showed elevation of BUN and S-Cr. after the i.m. HBK therapy in spite of sparing dosages. In another patient treated intravenously, eosinophilia up to 13.5% was observed. These results should suggest the clinical availability of HBK.

L5 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1943:3747 CAPLUS  
DOCUMENT NUMBER: 37:3747

ORIGINAL REFERENCE NO.: 37:668e-g  
TITLE: The effect of tocopherol on creatinuria  
AUTHOR(S): Ellenberg, Max; Mayer, Gerda Gernsheim  
SOURCE: Journal of the Mount Sinai Hospital (New York) (1942),  
9, 407-12  
CODEN: JMSHAO; ISSN: 0099-9695  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
AB cf. C. A. 35, 5543.8. Creatinine excretion was not affected by tocopherol withdrawal in monkeys, nor did it deviate from the normal range in patients with amyotrophic lateral sclerosis (I) with and without tocopherol treatment. Creatine excretion was elevated in 3 out of 5 vitamin E-deficient monkeys, but this response, like the appearance of neurological symptoms, is not as regularly evoked in monkeys as in other species. Creatinuria in patients with I was elevated, and showed noticeable fluctuations. The creatine tolerance test showed abnormally low retention in only 4 out of 22 cases of I. The creatine metabolism of patients with I showed no correlation with the clinical fluctuation during tocopherol administration.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	51.72	51.93
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
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LAST RELOADED: Apr 14, 2006 (20060414/UP).

=> fil medline biosis capplus scisearch embase wpids  
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 FULL ESTIMATED COST ENTRY SESSION  
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 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL  
 CA SUBSCRIBER PRICE ENTRY SESSION  
 0.00 -3.00

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FILE 'EMBASE' ENTERED AT 14:23:31 ON 17 APR 2006  
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=> treat? and amyotrophic  
L6 11974 TREAT? AND AMYOTROPHIC

=> creatinine and 16  
L7 39 CREATININE AND L6

=> dup rem 17  
PROCESSING COMPLETED FOR L7  
L8 30 DUP REM L7 (9 DUPLICATES REMOVED)

=> t ti l8 1-30

L8 ANSWER 1 OF 30 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
TI Diagnosing convulsive condition or susceptibility to it involves analyzing a bodily fluid from a patient for the presence or amount of a neuro-active molecule, associated with a convulsive condition, followed by diagnosing.

L8 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1  
TI Preparation of piperazinylpyridine derivatives as 5-HT3 receptor antagonists, pharmaceutical compositions containing them, and their uses

L8 ANSWER 3 OF 30 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
TI Medical agent useful for **treating** diseases e.g. irritable bowel syndrome, bladder dysfunction and schizophrenia, comprises piperazinyl pyridine derivative as active ingredient.

L8 ANSWER 4 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI **Amyotrophic** lateral sclerosis: Possible role of environmental influences.

L8 ANSWER 5 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI The emerging role of coenzyme Q-10 in aging, neurodegeneration, cardiovascular disease, cancer and diabetes mellitus.

L8 ANSWER 6 OF 30 MEDLINE on STN  
TI Few adverse effects of long-term creatine supplementation in a placebo-controlled trial.

L8 ANSWER 7 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI The therapeutic role of creatine in Huntington's disease.

L8 ANSWER 8 OF 30 MEDLINE on STN DUPLICATE 2  
TI Prognostic factors for survival in **amyotrophic** lateral sclerosis patients **treated** with riluzole.

L8 ANSWER 9 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI [**Amyotrophic** lateral sclerosis during multiple myeloma [2]].  
SYNDROME DE SCLEROSE LATERALE AMYOTROPHIQUE AU COURS D'UN MYELOME MULTIPLE.

L8 ANSWER 10 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI Clarifying adverse drug event terminology; thiazolidinedione-induced congestive heart failure; riluzole-induced neutropenia; possible

pancreatitis linked to quetiapine use; clopidogrel-induced thrombotic, thrombocytopenic purpura.

L8 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3  
TI Orthomolecular sulfo-adenosylmethionine derivatives with antioxidant properties

L8 ANSWER 12 OF 30 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
TI Diagnosing convulsive condition or its susceptibility in subject involves analyzing bodily fluid for the presence, amount, or the relative amounts of the neuro-active molecules associated with convulsive condition.

L8 ANSWER 13 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI Targeting cellular energy production in neurological disorders.

L8 ANSWER 14 OF 30 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN  
TI ALS **treatment** strikes out while trying for a homer: The topiramate trial.

L8 ANSWER 15 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI [Chronic neurological disease and enteral nutrition in elderly patients]. LA NUTRIZIONE ENTERALE NEI PAZIENTI AFFETTI DA PATOLOGIA NEUROLOGICA CRONICA.

L8 ANSWER 16 OF 30 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN  
TI Early detection and longitudinal changes in **amyotrophic** lateral sclerosis by 1H MRSI.

L8 ANSWER 17 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI Nutritional issues and supplements in **amyotrophic** lateral sclerosis and other neurodegenerative disorders.

L8 ANSWER 18 OF 30 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN  
TI Metabolic changes precede pathologic changes in the G93A mouse model of familial **amyotrophic** lateral sclerosis (fALS).

L8 ANSWER 19 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI Motor neuron disease.

L8 ANSWER 20 OF 30 MEDLINE on STN  
TI Enteral nutrition in patients with chronic neurological diseases.

L8 ANSWER 21 OF 30 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN  
TI Preventive effects of insulinlike growth factor-I on steroid-induced muscle atrophy

L8 ANSWER 22 OF 30 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN  
TI Effect of dietary supplementation with branched-chain amino acids on spontaneous motor activity and muscle function in beta,beta'-iminodipropionitrile-**treated** rats: A model for motorneuropathy

L8 ANSWER 23 OF 30 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

TI Development of degenerative muscle weakness by chronic administration of beta,beta'-iminodipropionitrile in the drinking water to rats: A model for motorneuropathy

L8 ANSWER 24 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

TI Issues in clinical trial design II: Selection of end point measures.

L8 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4

TI Cyclosporin: a review of its pharmacodynamic and pharmacokinetic properties, and therapeutic use in immunoregulatory disorders

L8 ANSWER 26 OF 30 MEDLINE on STN DUPLICATE 5

TI Disturbance of the water and electrolyte balance during high-dose interferon **treatment**.

L8 ANSWER 27 OF 30 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

TI Laboratory and clinical studies on HBK.

L8 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2006 ACS on STN

TI **Treatment** of myopathies with anabolic steroids. I. Metabolic studies

L8 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2006 ACS on STN

TI The effect of tocopherol on creatinuria

L8 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2006 ACS on STN

TI Further progress in the **treatment** of **amyotrophic** lateral sclerosis with the tocopherols (synthetic vitamin E)

=> py>1994 and 18

L9 24 PY>1994 AND L8

=> 18 not 19

L10 6 L8 NOT L9

=> t ti l10 1-6

L10 ANSWER 1 OF 6 MEDLINE on STN

TI Disturbance of the water and electrolyte balance during high-dose interferon **treatment**.

L10 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

TI Cyclosporin: a review of its pharmacodynamic and pharmacokinetic properties, and therapeutic use in immunoregulatory disorders

L10 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

TI **Treatment** of myopathies with anabolic steroids. I. Metabolic studies

L10 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

TI The effect of tocopherol on creatinuria

L10 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

TI Further progress in the **treatment** of **amyotrophic** lateral sclerosis with the tocopherols (synthetic vitamin E)

L10 ANSWER 6 OF 6 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

TI Laboratory and clinical studies on HBK.

=> d ibib abs 110 3, 4, 5, 6

L10 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1964:92228 CAPLUS  
DOCUMENT NUMBER: 60:92228  
ORIGINAL REFERENCE NO.: 60:16170g-h,16171a  
TITLE: *Treatment of myopathies with anabolic steroids. I. Metabolic studies*  
AUTHOR(S): Hantschmann, M.; Matzelt, D.; Mertens, H. G.; Nowakowski, H.  
CORPORATE SOURCE: Chirurg. Univ.-Klin., Kiel, Germany  
SOURCE: Deutsche Medizinische Wochenschrift (1962), 87(51), 2619-26  
CODEN: DMWOAX; ISSN: 0012-0472  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB The anabolic steroids 19-nortestosterone decanoate and 19-nortestosterone phenylpropionate, were therapeutically administered in daily or biweekly doses in cases of primary myopathy and **amyotrophic lateral sclerosis**, and elaborate clin. biochem. and balance studies were made. Urinary **creatinine** levels, total serum protein (I), I-fractionation by paper electrophoresis, serum Ca, urinary 17-keto steroids, urinary 17-hydroxy corticoids, serum alkaline phosphatase, diphosphofructose aldolase, glyceraldehyde phosphate,  $\alpha$ -glycerophosphate, lactic (II), and malic dehydrogenases (III), and of glutamate-oxalacetic and glutamic-pyruvic transaminase activities and balance studies, involving N, Ca, and P, were determined according to standard methods. Creatinuria was enhanced in primary myopathies, serum Ca and I levels were at the upper limits of normal, there were no significant changes in the serum I fractions, N balance was inversely proportional to the degree of muscular atrophy, and there was a marked decrease in the excretion of 17-keto steroids. Anabolic steroids caused significant increases in the activities of II and III which were within normal limits without this **treatment**; these increases were achieved after 10-20 weeks, with a total dose of 400-800 mg. A discussion was given of the merits of the assessment of enzymic activity in the differential diagnosis of myopathies, and of the possible mechanism of action of anabolic steroids. This mechanism was believed to involve the improvement of the energetics of muscle cells by alterations in the pattern of their enzymic functions.

L10 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1943:3747 CAPLUS  
DOCUMENT NUMBER: 37:3747  
ORIGINAL REFERENCE NO.: 37:668e-g  
TITLE: The effect of tocopherol on creatinuria  
AUTHOR(S): Ellenberg, Max; Mayer, Gerda Gernsheim  
SOURCE: Journal of the Mount Sinai Hospital (New York) (1942), 9, 407-12  
CODEN: JMSHAO; ISSN: 0099-9695  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB cf. C. A. 35, 5543.8. **Creatinine** excretion was not affected by tocopherol withdrawal in monkeys, nor did it deviate from the normal range in patients with **amyotrophic lateral sclerosis** (I) with and without tocopherol **treatment**. Creatine excretion was elevated in 3 out of 5 vitamin E-deficient monkeys, but this response, like the appearance of neurological symptoms, is not as regularly evoked in monkeys as in other species. Creatinuria in patients with I was elevated, and showed noticeable fluctuations. The creatine tolerance test showed

abnormally low retention in only 4 out of 22 cases of I. The creatine metabolism of patients with I showed no correlation with the clinical fluctuation during tocopherol administration.

L10 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1941:30609 CAPLUS  
DOCUMENT NUMBER: 35:30609  
ORIGINAL REFERENCE NO.: 35:4809a-c  
TITLE: Further progress in the treatment of amyotrophic lateral sclerosis with the tocopherols (synthetic vitamin E)  
AUTHOR(S): Wechsler, Israel S.  
SOURCE: Transactions of the American Neurological Association (1940), 66, 59-60  
CODEN: TANAA4; ISSN: 0065-9479  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
AB cf. C. A. 35, 1843.1. Since the last report, 24 patients with amyotrophic lateral sclerosis have been treated with vitamin E. Of these, 8 to 10 have shown varying degrees of restitution or recovery, some to the point where they may be said to be well. Despite the fact that the majority showed bulbar involvement and a few were in terminal stages, none of the patients died, which indicates that vitamin E arrested the progress of the disease. Report will be made of studies of gastric, pancreatic and bile function in relation to oral and parenteral vitamin E therapy, and of creatinine studies as an index to the effect of vitamin E administration. It is pointed out that the concept of "degenerative disease" has become meaningless, and that the discovery of the specific vitamin deficiency in amyotrophic lateral sclerosis opens up the field of other "degenerative diseases" to investigation. The wheat-germ oil was tried by Denker on the theory, not substantiated, that there might be a therapeutic agent in the vitamin E complex which was not present in  $\alpha$ -tocopherol itself.

L10 ANSWER 6 OF 6 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
ACCESSION NUMBER: 86134373 EMBASE  
DOCUMENT NUMBER: 1986134373  
TITLE: Laboratory and clinical studies on HBK.  
AUTHOR: Okamoto Y.; Maehara K.; Mase K.; et al.  
CORPORATE SOURCE: First Department of Internal Medicine, Kansai Medical University, Moriguchi, Osaka, Japan  
SOURCE: Chemotherapy, (1986) Vol. 34, No. SUPPL. 1, pp. 247-260. .  
CODEN: NKRZAZ  
COUNTRY: Japan  
DOCUMENT TYPE: Journal  
FILE SEGMENT: 038 Adverse Reactions Titles  
037 Drug Literature Index  
LANGUAGE: Japanese  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 10 Dec 1991  
Last Updated on STN: 10 Dec 1991  
AB HBK, a newly developed derivative of dibekacin, was examined on its antibacterial activity in vitro, as well as on its clinical usefulness. The results obtained were as follows: 1) Antibacterial activity in vitro: MIC of HBK against bacterial strains isolated from clinical infection foci were estimated and compared with those of amikacin (AMK) and gentamicin (GM). Among the three antibiotics examined, HBK was most active against *P. morganii* strains, while HBK was found to be least active against *Serratia* strains. Some of the GM-resistant strains of *S. aureus*, *E. coli*, and *K. pneumoniae* showed considerable sensitivity to HBK, but, in general, strains of these species and those of *P. mirabilis* and *P. rettgeri* showed

sensitivity to the three aminoglycosides in the following order: GM > HBK > AMK. The three antibiotics showed similar sensitivity distribution as to the strains of *P. aeruginosa*, *E. cloacae* or those of *C. freundii*. 2) Clinical trials: Twelve patients, in total, with infections, all having some underlying diseases, were treated with HBK. Nine (RTI 3, UTI 5, phlegmon 1) of them were treated with HBK 50.apprx.100 mg x 1.apprx.2/day intramuscularly: Six of them responded well to the therapy, while the remaining 3 failed, i.e. each one having pneumonia complicating **amyotrophic lateral sclerosis**, RTI complicating lung cancer, and UTI with indwelling catheter, respectively. Further, 3 cases (RTI 2, BTI 1) were administered HBK 100 mg x 2/day by intravenous drip infusion: One of them, a patient with acute exacerbation of chronic bronchitis complicating cerebral infarction, responded well to the treatment. None of the cases showed clinical side effects. As to the abnormal laboratory findings attributable to the drug, 1 patient with renal impairment showed elevation of BUN and S-Cr. after the i.m. HBK therapy in spite of sparing dosages. In another patient **treated** intravenously, eosinophilia up to 13.5% was observed. These results should suggest the clinical availability of HBK.

=> e kaddurah/au

E1	1	KADDUR ZIYAD/AU
E2	2	KADDURA R/AU
E3	0 -->	KADDURAH/AU
E4	6	KADDURAH A K/AU
E5	3	KADDURAH AHMAD K/AU
E6	1	KADDURAH DAOUK/AU
E7	112	KADDURAH DAOUK R/AU
E8	1	KADDURAH DAOUK R F/AU
E9	3	KADDURAH DAOUK RIM/AU
E10	83	KADDURAH DAOUK RIMA/AU
E11	1	KADDURAH DAOUKA R/AU
E12	1	KADDURAH DAOUX R/AU

=> e6-e11

L11 201 ("KADDURAH DAOUK"/AU OR "KADDURAH DAOUK R"/AU OR "KADDURAH DAOUK R F"/AU OR "KADDURAH DAOUK RIM"/AU OR "KADDURAH DAOUK RIMA"/AU OR "KADDURAH DAOUKA R"/AU)

=> amyotrophic and l11

L12 25 AMYOTROPHIC AND L11

=> creatinine and l12

L13 0 CREATININE AND L12

=> dup rem l12

PROCESSING COMPLETED FOR L12

L14 13 DUP REM L12 (12 DUPLICATES REMOVED)

=> d ibib abs l14 1-13

L14 ANSWER 1 OF 13 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:362658 SCISEARCH

THE GENUINE ARTICLE: 022PM

TITLE: Identification of metabolic and protein biomarkers for **amyotrophic lateral sclerosis**

AUTHOR: Paige L (Reprint); Bowser R; Lutka F; An J; Ganchev P; Gopalakrishnan V; Newhall K; Kruczek K; Welsh E;

**Kaddurah-Daouk R**; Brown R H; Cudkowicz M E

SOURCE: NEUROLOGY, (14 MAR 2006) Vol. 66, No. 5, Supp. [2], pp.

A386-A386.  
 ISSN: 0028-3878.  
 PUBLISHER: LIPPINCOTT WILLIAMS & WILKINS, 530 WALNUT ST,  
 PHILADELPHIA, PA 19106-3621 USA.  
 DOCUMENT TYPE: Conference; Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 0  
 ENTRY DATE: Entered STN: 13 Apr 2006  
 Last Updated on STN: 13 Apr 2006

L14 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:58097 CAPLUS  
 DOCUMENT NUMBER: 142:130358  
 TITLE: Methods for drug discovery, disease treatment, and  
 diagnosis using metabolomics  
 INVENTOR(S): Kaddurah-Daouk, Rima; Kristal, Bruce  
 PATENT ASSIGNEE(S): Metabolon, Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 40 pp., Cont.-in-part of U.S.  
 Ser. No. 835,119.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005014132	A1	20050120	US 2003-695265	20031027
US 2002009740	A1	20020124	US 2001-835119	20010413
US 2004146853	A1	20040729	US 2004-757616	20040113
US 7005255	B2	20060228		

PRIORITY APPLN. INFO.:

US 2000-197085P	P	20000414
US 2000-197117P	P	20000414
US 2000-239541P	P	20001010
US 2000-239340P	P	20001011
US 2001-835119	A2	20010413
US 2002-421226P	P	20021025

AB The small mol. profiles of cells are compared to identify small mols. which are modulated in altered states. Cellular small mol. libraries, methods of identifying tissue sources, methods for treating genetic and non-genetic diseases, and methods for predicting the efficacy of drugs are also discussed. Databases of metabolites in the plasma of amyotrophic lateral sclerosis (ALS) patients and in controls were generated. Metabolites in the plasma were separated using different HPLC methods and detected by CEAS (coulometric electrode array system), LC/MS (liquid chromatograph/mass spectrometry) and/or GC/MS (gas chromatograph/mass spectrometry). Samples from controls and ALS patients were profiled and data on each metabolite was extracted and stored in the resp. database. Using partial least square discriminate anal. (PLS-DA), ALS patients were distinguishable from their control counterparts.

L14 ANSWER 3 OF 13 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN  
 ACCESSION NUMBER: 2004:233067 BIOSIS  
 DOCUMENT NUMBER: PREV200400235471  
 TITLE: Use of creatine or creatine analogs for the treatment of  
 diseases of the nervous system.  
 AUTHOR(S): Kaddurah-Daouk, Rima [Inventor, Reprint Author];  
 Daouk, Ghaleb [Inventor]; Beal, M. Flint [Inventor]  
 CORPORATE SOURCE: Belmont, MA, USA  
 ASSIGNEE: Avicena Group, Inc., Palo Alto, CA, USA; The  
 General Hospital Corporation  
 PATENT INFORMATION: US 6706764 20040316

SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Mar 16 2004) Vol. 1280, No. 3.  
<http://www.uspto.gov/web/menu/patdata.html>. e-file.  
ISSN: 0098-1133 (ISSN print).

DOCUMENT TYPE: Patent

LANGUAGE: English

ENTRY DATE: Entered STN: 28 Apr 2004

Last Updated on STN: 28 Apr 2004

AB The present invention relates to the use of creatine compounds including creatine, creatine phosphate or analogs of creatine, such as cyclocreatine, for treating diseases of the nervous system. Creatine compounds can be used as therapeutically effective agents against a variety of diseases of the nervous system such as diabetic and toxic neuropathies, peripheral nervous system diseases, Alzheimer disease, Parkinson's disease, stroke, Huntington's disease, amyotrophic lateral sclerosis, motor neuron disease, traumatic nerve injury, multiple sclerosis, dysmyelination and demyelination disorders, and mitochondrial diseases. The Creatine compounds which can be used in the present method include (1) creatine, creatine phosphate and analogs of these compounds which can act as substrates or substrate analogs for creatine kinase; (2) bisubstrate inhibitors of creatine kinase comprising covalently linked structural analogs of adenosine triphosphate (ATP) and creatine; (3) creatine analogs which can act as reversible or irreversible inhibitors of creatine kinase; and (4) N-phosphocreatine analogs bearing non-transferable moieties which mimic the N-phosphoryl group.

L14 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:371158 CAPLUS

DOCUMENT NUMBER: 140:368632

TITLE: Methods for drug discovery, disease treatment, and diagnosis using metabolomics

INVENTOR(S): Kaddurah-Daouk, Rima

PATENT ASSIGNEE(S): Metabolon, Inc., USA

SOURCE: PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004038381	A2	20040506	WO 2003-US34172	20031027
WO 2004038381	A3	20040701		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003286726	A1	20040513	AU 2003-286726	20031027
PRIORITY APPLN. INFO.:			US 2002-421226P	P 20021025
			WO 2003-US34172	W 20031027

AB The small mol. profiles of cells are compared to identify small mols. which are modulated in altered states. Cellular small mol. libraries, methods of identifying tissue sources, methods for treating genetic and non-genetic diseases, and methods for predicting the efficacy of drugs are also discussed.

L14 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1  
 ACCESSION NUMBER: 2003:777593 CAPLUS  
 DOCUMENT NUMBER: 139:271094  
 TITLE: Inhibition of cell death responses induced by oxidative stress  
 INVENTOR(S): Kufe, Donald W.; Kaddurah-Daouk, Rima  
 PATENT ASSIGNEE(S): Dana-Farber Cancer Institute, Inc., USA  
 SOURCE: PCT Int. Appl., 44 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003080061	A1	20031002	WO 2003-US10112	20030320
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2479257	AA	20031002	CA 2003-2479257	20030320
AU 2003226209	A1	20031008	AU 2003-226209	20030320
EP 1487451	A1	20041222	EP 2003-745187	20030320
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			US 2002-366410P	P 20020321
			WO 2003-US10112	W 20030320

AB The invention provides methods of reducing or preventing oxidative stress-induced cell death by contacting a cell with a compound that inhibits the kinase activity and/or the mitochondrial translocation of c-Abl. The methods of the invention can be used to treat individuals diagnosed as having or being at risk of contracting a disorder characterized by excessive oxidative stress-induced cell death.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 6 OF 13 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2003-093114 [08] WPIDS  
 DOC. NO. CPI: C2003-023360  
 TITLE: Identifying a compound inhibiting mitochondrial translocation of a protein useful for treating neurological disorder or cancer by contacting cell subjected to stress that induces the translocation of the protein with a test compound.  
 DERWENT CLASS: B04 D16  
 INVENTOR(S): KADDURAH-DAOUK, R; KUFE, D W; WEICHSELBAUM, R R  
 PATENT ASSIGNEE(S): (KADD-I) KADDURAH-DAOUK R; (KUFE-I) KUFE D W; (WEIC-I) WEICHSELBAUM R R; (DAND) DANA FARBER CANCER INST INC; (UYCH-N) UNIV CHICAGO  
 COUNTRY COUNT: 97  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
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WO 2002086065 A2 20021031 (200308)\* EN 58  
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
 NL OA PT SD SE SL SZ TR TZ UG ZM ZW  
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
 DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
 KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU  
 SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
 US 2002182588 A1 20021205 (200308)  
 AU 2002303390 A1 20021105 (200433)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002086065	A2	WO 2002-US12224	20020418
US 2002182588	A1 Provisional	US 2001-284785P	20010418
		US 2002-125003	20020418
AU 2002303390	A1	AU 2002-303390	20020418

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2002303390	A1 Based on	WO 2002086065

PRIORITY APPLN. INFO: US 2001-284785P 20010418; US  
 2002-125003 20020418

AN 2003-093114 [08] WPIDS  
 AB WO 200286065 A UPAB: 20030204

NOVELTY - Identifying (M1) a compound that inhibits mitochondrial translocation of a protein comprising contacting the cell subjected to a cellular stress that induces mitochondrial translocation of the protein with a test compound, is new.

DETAILED DESCRIPTION - (M1) comprises:

- (a) providing a cell;
- (b) subjecting the cell to a cellular stress that induces mitochondrial translocation of the protein;
- (c) contacting the cell with a test compound; and
- (d) determining whether mitochondrial translocation of the protein is decreased when the cell is contacted with the test compound, where the decrease is an indication that the test compound inhibits mitochondrial translocation of the protein.

INDEPENDENT CLAIMS are also included for:

- (1) identifying a compound that increases mitochondrial translocation of a protein;
- (2) identifying a protein that is translocated to the mitochondria upon the induction of cellular stress;
- (3) identifying a protein that interacts with a mitochondrial-translocated protein;
- (4) identifying a compound that inhibits a protein-protein interaction;
- (5) a composition that binds to c-Abl or PKC $\delta$  and inhibits cellular stress-induced mitochondrial translocation of c-Abl or PKC $\delta$ ;
- (6) inhibiting or increasing apoptosis of a cell by inhibiting or increasing mitochondrial translocation of a protein in the cell;
- (7) treatment by selecting an individual suffering from or is at risk of contacting a disorder associated with inappropriate levels of apoptosis, and administering to the individual a compound that modulates mitochondrial translocation of c-Abl or PKC $\delta$ , or the phosphorylation or ubiquitination status of catalase;
- (8) identifying a compound that modulates binding of catalase to c-Abl or Arg;

(9) identifying a modulator of catalase phosphorylation or ubiquitination; and  
 (10) modulating apoptosis of a cell by modulating the phosphorylation or ubiquitination status of catalase in the cell.  
 ACTIVITY - Nootropic; Neuroprotective; Antiparkinsonian; Cytostatic; Immunosuppressive; Dermatological; Virucide; Cardiant; Cerebroprotective.  
 No suitable data given.  
 MECHANISM OF ACTION - Mitochondrial translocation modulator; catalase phosphorylation modulator; catalase ubiquitination modulator.  
 USE - The methods, compounds and compositions are useful for treating cancer; a neurological disorder (claimed) such as Alzheimer's disease, Parkinson's disease, **amyotrophic lateral sclerosis**, retinitis pigmentosa, spinal muscular atrophy; hematologic disorder such as anemia or neutropenia; lupus; viral infections; myocardial infarction; or stroke. The compounds are useful for modulating the level of apoptosis in a cell.  
 Dwg.0/0

L14 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2001:10091 CAPLUS  
 DOCUMENT NUMBER: 134:66161  
 TITLE: Use of aminoguanidine analogs for the treatment of diseases of the nervous system  
 INVENTOR(S): Kaddurah-Daouk, Rima  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S., 16 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6169115	B1	20010102	US 1999-316489	19990521
US 2003018082	A1	20030123	US 2002-193059	20020711
PRIORITY APPLN. INFO.:			US 1998-86504P	P 19980522
			US 1999-316489	A1 19990521
			US 2000-698511	B1 20001027

OTHER SOURCE(S): MARPAT 134:66161

AB The invention relates to the use of aminoguanidine compds. for treating diseases of the nervous system. Aminoguanidine compds. can be used as therapeutically effective agents against a variety of diseases of the nervous system, e.g. diabetic and toxic neuropathies, peripheral nervous system diseases, Alzheimer's disease, Parkinson's disease, stroke, Huntington's disease, amyotrophic lateral sclerosis, motor neuron disease, traumatic nerve injury, multiple sclerosis, dysmyelination and demyelination disorders, and mitochondrial diseases. The aminoguanidine compds. which can be used in the present method include (1) aminoguanidine and diaminoguanidine analogs which can act as substrates or substrate analogs for creatine kinase; (2) bisubstrate inhibitors of creatine kinase comprising covalently linked structural analogs of ATP and aminoguanidine; (3) aminoguanidine analogs which can act as reversible or irreversible inhibitors of creatine kinase; and (4) N-phosphoroaminoguanidine analogs bearing nontransferable moieties which mimic the N-phosphoryl group.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 8 OF 13 MEDLINE on STN DUPLICATE 2  
 ACCESSION NUMBER: 2001230746 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 11299300  
 TITLE: Increases in cortical glutamate concentrations in transgenic **amyotrophic** lateral sclerosis mice are

AUTHOR: attenuated by creatine supplementation.  
Andreassen O A; Jenkins B G; Dedeoglu A; Ferrante K L;  
Bogdanov M B; **Kaddurah-Daouk R**; Beal M F  
CORPORATE SOURCE: Neurochemistry Laboratory, Neurology Service, Massachusetts  
General Hospital and Harvard Medical School, Boston,  
Massachusetts, USA.  
CONTRACT NUMBER: PO1 AG12992 (NIA)  
SOURCE: Journal of neurochemistry, (2001 Apr) Vol. 77, No. 2, pp.  
383-90.  
Journal code: 2985190R. ISSN: 0022-3042.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200105  
ENTRY DATE: Entered STN: 20010521  
Last Updated on STN: 20010521  
Entered Medline: 20010517

AB Several lines of evidence implicate excitotoxic mechanisms in the pathogenesis of **amyotrophic** lateral sclerosis (ALS). Transgenic mice with a superoxide dismutase mutation (G93A) have been utilized as an animal model of familial ALS (FALS). We examined the cortical concentrations of glutamate using in vivo microdialysis and in vivo nuclear magnetic resonance (NMR) spectroscopy, and the effect of long-term creatine supplementation. NMDA-stimulated and Ltrans-pyrrolidine-2,4-dicarboxylate (LTPD)-induced increases in glutamate were significantly higher in G93A mice compared with littermate wild-type mice at 115 days of age. At this age, the tissue concentrations of glutamate were also significantly increased as measured with NMR spectroscopy. Creatine significantly increased longevity and motor performance of the G93A mice, and significantly attenuated the increases in glutamate measured with spectroscopy at 75 days of age, but had no effect at 115 days of age. These results are consistent with impaired glutamate transport in G93A transgenic mice. The beneficial effect of creatine may be partially mediated by improved function of the glutamate transporter, which has a high demand for energy and is susceptible to oxidative stress.

L14 ANSWER 9 OF 13 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN  
DUPLICATE 3  
ACCESSION NUMBER: 2000:445723 BIOSIS  
DOCUMENT NUMBER: PREV200000445723  
TITLE: **Amyotrophic** lateral sclerosis: Transgenic model  
and novel neuroprotective agent.  
AUTHOR(S): **Kaddurah-Daouk, R.** [Reprint author]; Matthews,  
R.; Beal, M. Flint  
CORPORATE SOURCE: Avicena Group Inc., One Broadway, Suite 600, Cambridge, MA,  
02142, USA  
SOURCE: Neuroscience Research Communications, (May-June, 2000) Vol.  
26, No. 3, pp. 215-226. print.  
CODEN: NRCOEE. ISSN: 0893-6609.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 18 Oct 2000  
Last Updated on STN: 10 Jan 2002

AB The discovery of mutations in the human SOD1 gene encoding (Cu, Zn SOD) in patients with familial **amyotrophic** lateral sclerosis (ALS) has made possible the development of etiological models of the disease. Expression of mutant SOD1 genes in transgenic mice (FALS mice) causes progressive paralytic disease whose general features resemble ALS in humans. Extensive studies strongly suggest that Cu, Zn SOD mutations cause an adverse gain of function that results in enhanced generation of damaging oxygen radicals. Mitochondria are particularly vulnerable to

oxidative stress, and mitochondrial swelling and vacuolization are among the earliest pathologic features in the FALS mice harboring the SOD mutations. Mitochondrial dysfunction may lead to ATP depletion, which may contribute to cell death. Creatine buffers against ATP depletion and inhibits the opening of the mitochondrial transition pore, a complex of proteins implicated in apoptosis. We found that oral administration of creatine to FALS mice expressing the G93A mutation produced a dose-dependent improvement in motor performance, extended survival and protected against loss of motor neurons and substantia nigra neurons. Additionally creatine protected against increases in biochemical indices of oxidative damage. The development of the FALS mice enables drug discovery studies in ALS.

L14 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2000:444069 CAPLUS  
DOCUMENT NUMBER: 133:280999  
TITLE: The neuroprotective properties of creatine in animal models of neurodegenerative diseases  
AUTHOR(S): Kaddurah-Daouk, Rima; Matthews, Rick; Beal, M. Flint  
CORPORATE SOURCE: Avicena Group, Cambridge, MA, 02142, USA  
SOURCE: Medical Science Symposia Series (2000), 14(Creatine), 101-118  
CODEN: MSSYEI; ISSN: 0928-9550  
PUBLISHER: Kluwer Academic Publishers  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The neuroprotective effects of dietary creatine or cyclocreatine supplementation were studied in mouse model of familial amyotrophic lateral sclerosis, in rats given malonate or 3-nitropropionate neurotoxins (model of Huntington disease), and in mice given 1,2,3,6-tetrahydro-1-methyl-4-phenylpyridine (MPTP) (model of Parkinson disease). Behavioral and brain histol. and biochem. evaluations were performed. Brain levels of creatine, phosphocreatine, lactate, IMP, AMP, ADP, ATP, salicylate, 2,3-DHBA, 2,5-DHBA, tyrosine, and 3-nitrotyrosine were measured in the 3-nitropropionate study. Brain levels of dopamine, 3,4-dihydroxyphenylacetic acid, and homovanillic acid were determined in the MPTP study. The creatine supplementation had neuroprotective effects in all 3 models of neurodegenerative diseases.  
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1999:659188 CAPLUS  
DOCUMENT NUMBER: 131:281583  
TITLE: Compositions containing a combination of a creatine compound and a neuroprotective compound for the treatment of nervous system diseases  
INVENTOR(S): Kaddurah-Daouk, Rima; Beal, M. Flint  
PATENT ASSIGNEE(S): Avicena Group, Inc., USA; The General Hospital Corporation  
SOURCE: PCT Int. Appl., 81 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9951097	A1	19991014	WO 1999-US7340	19990402
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,				

DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,  
 JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,  
 MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,  
 TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,  
 RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,  
 ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,  
 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 CA 2327095 AA 19991014 CA 1999-2327095 19990402  
 AU 9933803 A1 19991025 AU 1999-33803 19990402  
 AU 759467 B2 20030417  
 EP 1065931 A1 20010110 EP 1999-915245 19990402  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI  
 JP 2002510604 T2 20020409 JP 2000-541878 19990402  
 PRIORITY APPLN. INFO.: US 1998-80459P P 19980402  
 US 1999-283267 A 19990401  
 WO 1999-US7340 W 19990402

OTHER SOURCE(S): MARPAT 131:281583

AB The invention relates to the use of creatine compound and neuroprotective combinations including creatine, creatine phosphate, or analogs of creatine, such as cyclocreatine, for treating diseases of the nervous system. Creatine compds. in combination with neuroprotective agents can be used as therapeutically effective compns. against a variety of diseases of the nervous system, e.g. diabetic and toxic neuropathies, peripheral nervous system diseases, Alzheimer disease, Parkinson's disease, stroke, Huntington's disease, **amyotrophic** lateral sclerosis, motor neuron disease, traumatic nerve injury, multiple sclerosis, dysmyelination and demyelination disorders, and mitochondrial diseases. The creatine compds. which can be used in the present method include (1) creatine, creatine phosphate and analogs of these compds. which can act as substrates or substrate analogs for creatine kinase; (2) bisubstrate inhibitors of creatine kinase comprising covalently linked structural analogs of ATP and creatine; (3) creatine analogs which can act as reversible or irreversible inhibitors of creatine kinase; and (4) N-phosphorocreatine analogs bearing nontransferable moieties which mimic the N-phosphoryl group.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 12 OF 13 MEDLINE on STN DUPLICATE 4  
 ACCESSION NUMBER: 1999184199 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 10086395  
 TITLE: Neuroprotective effects of creatine in a transgenic animal model of **amyotrophic** lateral sclerosis.  
 AUTHOR: Klivenyi P; Ferrante R J; Matthews R T; Bogdanov M B; Klein A M; Andreassen O A; Mueller G; Wermer M; Kaddurah-Daouk R; Beal M F  
 CORPORATE SOURCE: Neurochemistry Laboratory, Neurology Service, Massachusetts General Hospital and Harvard Medical School, Boston 02118, USA.  
 CONTRACT NUMBER: MH11692 (NIMH)  
 NS37102 (NINDS)  
 PO1 AG12292 (NIA)  
 SOURCE: Nature medicine, (1999 Mar) Vol. 5, No. 3, pp. 347-50.  
 Journal code: 9502015. ISSN: 1078-8956.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199904  
 ENTRY DATE: Entered STN: 19990426

Last Updated on STN: 19990426  
Entered Medline: 19990413

AB Mitochondria are particularly vulnerable to oxidative stress, and mitochondrial swelling and vacuolization are among the earliest pathologic features found in two strains of transgenic **amyotrophic lateral sclerosis** (ALS) mice with SOD1 mutations. Mice with the G93A human SOD1 mutation have altered electron transport enzymes, and expression of the mutant enzyme *in vitro* results in a loss of mitochondrial membrane potential and elevated cytosolic calcium concentration. Mitochondrial dysfunction may lead to ATP depletion, which may contribute to cell death. If this is true, then buffering intracellular energy levels could exert neuroprotective effects. Creatine kinase and its substrates creatine and phosphocreatine constitute an intricate cellular energy buffering and transport system connecting sites of energy production (mitochondria) with sites of energy consumption, and creatine administration stabilizes the mitochondrial creatine kinase and inhibits opening of the mitochondrial transition pore. We found that oral administration of creatine produced a dose-dependent improvement in motor performance and extended survival in G93A transgenic mice, and it protected mice from loss of both motor neurons and substantia nigra neurons at 120 days of age. Creatine administration protected G93A transgenic mice from increases in biochemical indices of oxidative damage. Therefore, creatine administration may be a new therapeutic strategy for ALS.

L14 ANSWER 13 OF 13 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:64250 BIOSIS  
DOCUMENT NUMBER: PREV199900064250  
TITLE: Neuroprotective effects of creatine in a transgenic animal model of ALS.  
AUTHOR(S): Beal, M. Flint [Reprint author]; Ferrante, Robert J.; Matthews, Russell T. [Reprint author]; Bogdanov, Mikhail B. [Reprint author]; Klein, Autumn; Mueller, Gerald [Reprint author]; Wermer, Marieke [Reprint author]; Kaddurah-Daouk, Rima; Klivenyi, Peter [Reprint author]  
CORPORATE SOURCE: Neurol. Serv., Mass. Gen. Hosp., Boston, MA 02114, USA  
SOURCE: Society for Neuroscience Abstracts, (1998) Vol. 24, No. 1-2, pp. 768. print.  
Meeting Info.: 28th Annual Meeting of the Society for Neuroscience, Part 1. Los Angeles, California, USA. November 7-12, 1998. Society for Neuroscience.  
ISSN: 0190-5295.  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
Conference; (Meeting Slide)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 16 Feb 1999  
Last Updated on STN: 16 Feb 1999

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(FILE 'HOME' ENTERED AT 14:17:48 ON 17 APR 2006)

FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT 14:18:20 ON 17 APR 2006

L1 394 TREAT? WITH AMYOTROPHIC  
L2 1 CREATININE AND L1  
L3 6758 TREAT? (S) AMYOTROPHIC  
L4 17 CREATININE AND L3  
L5 10 DUP REM L4 (7 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 14:22:24 ON 17 APR 2006

FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT  
14:23:31 ON 17 APR 2006

L6 11974 TREAT? AND AMYOTROPHIC  
L7 39 CREATININE AND L6  
L8 30 DUP REM L7 (9 DUPLICATES REMOVED)  
L9 24 PY>1994 AND L8  
L10 6 L8 NOT L9  
E KADDURAH/AU  
L11 201 E6-E11  
L12 25 AMYOTROPHIC AND L11  
L13 0 CREATININE AND L12  
L14 13 DUP REM L12 (12 DUPLICATES REMOVED)

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FULL ESTIMATED COST	113.42	165.47
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.75	-9.75

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=> fil medline biosis caplus scisearch embase wpids  
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ENTRY SESSION  
FULL ESTIMATED COST 0.21 0.21

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FILE 'BIOSIS' ENTERED AT 16:32:30 ON 17 APR 2006  
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FILE 'WPIDS' ENTERED AT 16:32:30 ON 17 APR 2006  
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=> treat? (s) amyotrophic  
L1 338 TREAT? (S) AMYOTROPHIC

=> creatine and l1  
L2 2 CREATINE AND L1

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=> dup rem 12
PROCESSING COMPLETED FOR L2
L3          2 DUP REM L2 (0 DUPLICATES REMOVED)
```

=> t ti 13 1-2

L3 ANSWER 1 OF 2 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
TI Use of pyruvic acid methyl ester or its ionized form for increasing neuronal energy production in a human, for **treating** e.g. **amyotrophic** lateral sclerosis or Parkinson's disease.

L3 ANSWER 2 OF 2 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
TI Use of aminoguanidine compounds for **treating** nervous system  
diseases e.g. Alzheimer's disease, Parkinson's disease, Huntington's  
disease, **amyotrophic** lateral sclerosis, motor neuron disease and  
traumatic nerve injury.

=> d ibib abs 13 1.2

L3 ANSWER 1 OF 2 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2006-203311 [21] WPIDS

DOC. NO. CPI: C2006-067257  
 TITLE: Use of pyruvic acid methyl ester or its ionized form for increasing neuronal energy production in a human, for **treating** e.g. **amyotrophic lateral sclerosis** or Parkinson's disease.  
 DERWENT CLASS: B05 D16 D21  
 INVENTOR(S): ANTOSH, S C; MEDURI, A J  
 PATENT ASSIGNEE(S): (ANTO-I) ANTOSH S C; (MEDU-I) MEDURI A J  
 COUNTRY COUNT: 111  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2006052448	A1	20060309	(200621)*	10	
WO 2006028948	A2	20060316	(200621)	EN	
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2006052448	A1	US 2004-711255	20040904
WO 2006028948	A2	WO 2005-US31249	20050831

PRIORITY APPLN. INFO: US 2004-711255 20040904  
 AN 2006-203311 [21] WPIDS  
 AB US2006052448 A UPAB: 20060328  
 NOVELTY - In increasing neuronal energy production in a human, pyruvic acid methyl ester or its ionized form (methyl pyruvate) is used.  
 ACTIVITY - Neuroprotective; CNS-Gen.; Vasotropic; Antiparkinsonian; Anticonvulsant; Nootropic.

MECHANISM OF ACTION - None given.  
 USE - For increasing neuronal energy production in a human; for protecting a human central nervous system against neuronal degeneration caused by a defect in intracellular energy metabolic enzyme, or against neuronal degeneration triggered by ischemic event; also for **treating amyotrophic lateral sclerosis, multiple sclerosis, Parkinson's disease, Huntington's disease or Alzheimer's disease** (all claimed).

ADVANTAGE - The treatment is effective when administered on a chronic or acute basis. The salts of methyl pyruvate are stable under normal storage conditions, have adequate shelf life, and are physiologically acceptable when introduced into the body.

Dwg.0/0

L3 ANSWER 2 OF 2 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2003-708288 [67] WPIDS  
 CROSS REFERENCE: 1996-251537 [25]; 2002-040078 [05]  
 DOC. NO. CPI: C2003-195242  
 TITLE: Use of aminoguanidine compounds for **treating** nervous system diseases e.g. Alzheimer's disease, Parkinson's disease, Huntington's disease, **amyotrophic lateral sclerosis**, motor neuron disease and traumatic nerve injury.

DERWENT CLASS: B05  
INVENTOR(S): KADDURAH-DAOUK, R  
PATENT ASSIGNEE(S): (KADD-I) KADDURAH-DAOUK R  
COUNTRY COUNT: 1  
PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG
US 2003018082	A1 20030123 (200367)*			16

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003018082	A1 Provisional	US 1998-86504P	19980522
	Cont of	US 1999-316489	19990521
	Cont of	US 2000-698511	20001027
		US 2002-193059	20020711

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2003018082	A1 Cont of	US 6169115

PRIORITY APPLN. INFO: US 1998-86504P 19980522; US  
1999-316489 19990521; US  
2000-698511 20001027; US  
2002-193059 20020711

AN 2003-708288 [67] WPIDS

CR 1996-251537 [25]; 2002-040078 [05]

AB US2003018082 A UPAB: 20031017

NOVELTY - Treatment of nervous system disease involves administering an aminoguanidine compound (I).

ACTIVITY - Nootropic; Neuroprotective; Antiparkinsonian; Anticonvulsant; Antiinflammatory; Antimigraine; Antibacterial; Fungicide; Vasotropic; Cerebroprotective; Antidepressant; Neuroleptic.

MECHANISM OF ACTION - Creatine Kinase Inhibitor.

USE - For treating disease of the nervous system e.g. neuropathies, Alzheimer's disease, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, motor neuron disease, traumatic nerve injury, multiple sclerosis, acute disseminated encephalomyelitis, acute narcotizing hemorrhagic leukoencephalitis, dysmyelination disease, mitochondrial disease, migrainous disorder, bacterial infection, fungal infection, stroke, aging, dementia, peripheral nervous system disease and mental disorders such as depression and schizophrenia in mammals, especially humans. For reducing or eliminating symptoms associated with pre-existing disease or preventing the occurrence of disease of the nervous system (all claimed).

ADVANTAGE - The aminoguanidines help in alleviating toxic side effects of drugs used to treat a nervous system disease.

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=> treat? and amyotrophic  
L4 387 TREAT? AND AMYOTROPIC

=> creatine and l4  
L5 8 CREATINE AND L4

=> dup rem 15  
PROCESSING COMPLETED FOR L5

L6

6 DUP REM L5 (2 DUPLICATES REMOVED)

=> t ti 16 1-6

L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1  
TI Use of methyl pyruvate or methyl pyruvic acid for the **treatment** of diseases of the nervous system and for protecting a human central nervous system against neuronal degeneration caused by defective intracellular energy production.

L6 ANSWER 2 OF 6 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN  
TI Use of **creatine** or **creatine** analogs for the **treatment** of diseases of the nervous system.

L6 ANSWER 3 OF 6 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI Current pharmacological management of **amyotrophic** lateral sclerosis and a role for rational polypharmacy.

L6 ANSWER 4 OF 6 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
TI Use of aminoguanidine compounds for **treating** nervous system diseases e.g. Alzheimer's disease, Parkinson's disease, Huntington's disease, **amyotrophic** lateral sclerosis, motor neuron disease and traumatic nerve injury.

L6 ANSWER 5 OF 6 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 2  
TI Use of aminoguanidine analogs for the **treatment** of diseases of the nervous system.

L6 ANSWER 6 OF 6 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
TI Compositions comprising a **creatine** compounds and a neuroprotective agent to modulate nervous system diseases.

=> 16 not 13

L7 5 L6 NOT L3

=> t ti 17 1-5

L7 ANSWER 1 OF 5 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN  
TI Use of **creatine** or **creatine** analogs for the **treatment** of diseases of the nervous system.

L7 ANSWER 2 OF 5 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN  
TI Use of aminoguanidine analogs for the **treatment** of diseases of the nervous system.

L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN  
TI Use of methyl pyruvate or methyl pyruvic acid for the **treatment** of diseases of the nervous system and for protecting a human central nervous system against neuronal degeneration caused by defective intracellular energy production.

L7 ANSWER 4 OF 5 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
TI Current pharmacological management of **amyotrophic** lateral sclerosis and a role for rational polypharmacy.

L7 ANSWER 5 OF 5 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
TI Compositions comprising a **creatine** compounds and a neuroprotective agent to modulate nervous system diseases.

=> d ibib abs 17 1-5

L7 ANSWER 1 OF 5 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN  
ACCESSION NUMBER: 2004:233067 BIOSIS  
DOCUMENT NUMBER: PREV200400235471  
TITLE: Use of **creatine** or **creatine** analogs for  
the **treatment** of diseases of the nervous system.  
AUTHOR(S): Kaddurah-Daouk, Rima [Inventor, Reprint Author]; Daouk,  
Ghaleb [Inventor]; Beal, M. Flint [Inventor]  
CORPORATE SOURCE: Belmont, MA, USA  
ASSIGNEE: Avicena Group, Inc., Palo Alto, CA, USA; The  
General Hospital Corporation  
PATENT INFORMATION: US 6706764 20040316  
SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (Mar 16 2004) Vol. 1280, No. 3.  
<http://www.uspto.gov/web/menu/patdata.html>. e-file.  
ISSN: 0098-1133 (ISSN print).  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
ENTRY DATE: Entered STN: 28 Apr 2004  
Last Updated on STN: 28 Apr 2004  
AB The present invention relates to the use of **creatine** compounds  
including **creatine**, **creatine** phosphate or analogs of  
**creatine**, such as cyclocreatine, for **treating** diseases  
of the nervous system. **Creatine** compounds can be used as  
therapeutically effective agents against a variety of diseases of the  
nervous system such as diabetic and toxic neuropathies, peripheral nervous  
system diseases, Alzheimer disease, Parkinson's disease, stroke,  
Huntington's disease, **amyotrophic** lateral sclerosis, motor neuron  
disease, traumatic nerve injury, multiple sclerosis, dysmyelination and  
demyelination disorders, and mitochondrial diseases. The **Creatine**  
compounds which can be used in the present method include (1)  
**creatine**, **creatine** phosphate and analogs of these  
compounds which can act as substrates or substrate analogs for  
**creatine** kinase; (2) bisubstrate inhibitors of **creatine**  
kinase comprising covalently linked structural analogs of adenosine  
triphosphate (ATP) and **creatine**; (3) **creatine** analogs  
which can act as reversible or irreversible inhibitors of **creatine**  
kinase; and (4) N-phosphocreatine analogs bearing non-transferable  
moieties which mimic the N-phosphoryl group.

L7 ANSWER 2 OF 5 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN  
ACCESSION NUMBER: 2001:308625 BIOSIS  
DOCUMENT NUMBER: PREV200100308625  
TITLE: Use of aminoguanidine analogs for the **treatment**  
of diseases of the nervous system.  
AUTHOR(S): Kaddurah-Daouk, Rim [Inventor, Reprint author]  
CORPORATE SOURCE: 4 Ross Rd., Belmont, MA, 02178, USA  
PATENT INFORMATION: US 6169115 20010102  
SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (Jan. 2, 2001) Vol. 1242, No. 1. e-file.  
CODEN: OGUPE7. ISSN: 0098-1133.  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
ENTRY DATE: Entered STN: 27 Jun 2001  
Last Updated on STN: 19 Feb 2002  
AB The present invention relates to the use of aminoguanidine compounds for  
**treating** diseases of the nervous system. Aminoguanidine compounds  
can be used as therapeutically effective agents against a variety of  
diseases of the nervous system such as diabetic and toxic neuropathies,

peripheral nervous system diseases, Alzheimer's disease, Parkinson's disease, stroke, Huntington's disease, **amyotrophic lateral sclerosis**, motor neuron disease, traumatic nerve injury, multiple sclerosis, dysmyelination and demyelination disorders, and mitochondrial diseases. The aminoguanidine compounds which can be used in the present method include (1) aminoguanidine and diaminoguanidine analogs which can act as substrates or substrate analogs for **creatine** kinase; (2) bisubstrate inhibitors of **creatine** kinase comprising covalently linked structural analogs of adenosine triphosphate (ATP) and aminoguanidine; (3) aminoguanidine analogs which can act as reversible or irreversible inhibitors of **creatine** kinase; and (4) N-phosphoroaminoguanidine analogs bearing nontransferrable moieties which mimic the N-phosphoryl group.

L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:216951 CAPLUS

DOCUMENT NUMBER: 144:267302

TITLE: Use of methyl pyruvate or methyl pyruvic acid for the treatment of diseases of the nervous system and for protecting a human central nervous system against neuronal degeneration caused by defective intracellular energy production.

INVENTOR(S): Antosh, Stanley Charles; Meduri, Anthony J.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006052448	A1	20060309	US 2004-711255	20040904
WO 2006028948	A2	20060316	WO 2005-US31249	20050831
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2004-711255 A 20040904

AB The present invention relates to the use of Me pyruvic acid (a Me ester of pyruvic acid) and/or Me pyruvate (Me pyruvate is the ionized form of Me pyruvic acid) for the purpose of **treating** diseases of the nervous system and/or to prevent against neuronal degeneration due to defective intracellular energy production. Me pyruvate compds. can be used as therapeutically effective agents against a variety of diseases of the nervous system such as diabetic and toxic neuropathies, peripheral nervous system diseases, Alzheimer disease, Parkinson's disease, stroke, Huntington's disease, **amyotrophic lateral sclerosis**, motor neuron disease, traumatic nerve injury, multiple sclerosis, dysmyelination, demyelination disorders, or cellular disorders which interfere with the energy metabolism of neurons and mitochondrial diseases. Use of Me pyruvate and/or Me pyruvic acid can be effective when administered orally or infused on either a chronic and/or acute basis. **Treatment** can

be effective even when administered after the onset of an ischemic event that triggers neurodegeneration. In the following text, the terms "methyl pyruvate, Me pyruvate compds., Me pyruvic acid" are used interchangeably.

L7 ANSWER 4 OF 5 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2004170360 EMBASE

TITLE: Current pharmacological management of **amyotrophic** lateral sclerosis and a role for rational polypharmacy.

AUTHOR: Weiss M.D.; Weydt P.; Carter G.T.

CORPORATE SOURCE: Dr. M.D. Weiss, Muscular Dystrophy Association, Department of Neurology, Univ. of Washington School of Med., Box 356115, 1959 NE Pacific Street, Seattle, WA 98195, United States. mdweiss@u.washington.edu

SOURCE: Expert Opinion on Pharmacotherapy, (2004) Vol. 5, No. 4, pp. 735-746. .

Refs: 141

ISSN: 1465-6566 CODEN: EOPHF7

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 005 General Pathology and Pathological Anatomy  
008 Neurology and Neurosurgery  
030 Pharmacology  
037 Drug Literature Index  
038 Adverse Reactions Titles

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 29 Apr 2004  
Last Updated on STN: 29 Apr 2004

AB **Amyotrophic** lateral sclerosis (ALS) is a progressive degenerative condition of motor neurons that is ultimately fatal. Even though scientific discovery over the past few decades has led to a greater understanding of the pathogenic mechanisms of ALS, effective pharmacotherapy intended to slow, arrest or reverse the disease progression remains difficult to obtain. Riluzole, a drug that has only modest benefit in extending survival, is still the only medication approved by the FDA for the **treatment** of ALS. However, a number of pharmacological agents are currently being investigated as potential therapy for ALS. This paper will review the pathophysiology of ALS and current pharmacological management of the disease and recent directions in research and clinical trials. Based on the available data, it is our opinion that combination drug therapies should be considered for future clinical trials. 2004 .COPYRGT. Ashley Publications Ltd.

L7 ANSWER 5 OF 5 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 1999-610926 [52] WPIDS

DOC. NO. CPI: C1999-177835

TITLE: Compositions comprising a **creatine** compounds and a neuroprotective agent to modulate nervous system diseases.

DERWENT CLASS: B05

INVENTOR(S): BEAL, F M; KADDURAH-DAOUK, R; BEAL, M F

PATENT ASSIGNEE(S): (AVIC-N) AVICENA GROUP INC; (GEHO) GEN HOSPITAL CORP

COUNTRY COUNT: 86

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG
WO 9951097	A1 19991014 (199952)*	EN	81	
RW:	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW			
W:	AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB			

GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU  
 LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR  
 TT UA UG UZ VN YU ZA ZW  
 AU 9933803 A 19991025 (200011)  
 EP 1065931 A1 20010110 (200103) EN  
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE  
 JP 2002510604 W 20020409 (200227) 100  
 AU 759467 B 20030417 (200333)  
 AU 2003200532 A1 20030417 (200433)#

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9951097	A1	WO 1999-US7340	19990402
AU 9933803	A	AU 1999-33803	19990402
EP 1065931	A1	EP 1999-915245	19990402
		WO 1999-US7340	19990402
JP 2002510604	W	WO 1999-US7340	19990402
		JP 2000-541878	19990402
AU 759467	B	AU 1999-33803	19990402
AU 2003200532	A1 Div ex	AU 1999-33803	19990402
		AU 2003-200532	20030214

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9933803	A Based on	WO 9951097
EP 1065931	A1 Based on	WO 9951097
JP 2002510604	W Based on	WO 9951097
AU 759467	B Previous Publ. Based on	AU 9933803 WO 9951097

PRIORITY APPLN. INFO: US 1999-283267 19990401; US  
 1998-80459P 19980402; AU  
 2003-200532 20030214

AN 1999-610926 [52] WPIDS

AB WO 9951097 A UPAB: 19991210

NOVELTY - Modulation of a nervous system disease comprises administering a combination of **creatine**, a **creatine** phosphate or a **creatine** analog and a neuroprotective agent.

DETAILED DESCRIPTION - DETAILED DESCRIPTION - A composition for modulating nervous system diseases comprises a **creatine**, a **creatine** phosphate or a **creatine** analog wherein the **creatine** compound is preferably a compound of formula (I) or a salt thereof: Y = CO<sub>2</sub>H, NHOH, NO<sub>2</sub>, SO<sub>3</sub>H, C(O)NHSO<sub>2</sub>J or -P(=O)(OH)(OJ); J = H, 1-6C alkyl, 2-6C alkenyl or aryl; A = C, CH, 1-5C alkyl, 2-5C alkenyl, 2-5C alkynyl or 1-5C alkoyl each chain having 0-2 substituents selected from: (a) 1-6C alkyl, 2-6C alkenyl or 1-6C alkoyl each having 0-2 substituents selected from Br, Cl, epoxy or acetoxy; (b) an aryl group selected from a 1-2 ring carbocycle and a 1-2 ring heterocycle wherein the aryl group contains 0-2 substituents selected from CH<sub>2</sub>L and COCH<sub>2</sub>L where L is Br, Cl, epoxy or acetoxy; or (c) -NH<sub>M</sub> where M is H, 1-4C alkyl, 2-4C alkenyl or 1-4C alkoyl; X = NR<sub>1</sub>, CHR<sub>1</sub>, CR<sub>1</sub>, O or S; R<sub>1</sub> = one of the following: (a) H; (b) 1-6C alkyl, 2-6C alkenyl or 1-6C alkoxyl optionally substituted by 0-2 groups from Br, Cl, epoxy or acetoxy; (c) an aryl group selected from a 1-2 ring carbocycle and a 1-2 ring heterocycle wherein the aryl group contains 0-2 substituents selected from CH<sub>2</sub>L and COCH<sub>2</sub>L where L is Br, Cl, epoxy or acetoxy; (d) a 5-9C a-amino-w-methyl-w-adenosylcarboxylic acid attached via the w-methyl carbon; (e) a 5-9C a-amino-w-aza-w-methyl-w-adenosylcarboxylic acid

attached via the w-methyl carbon; or (f) a 5-9C a-amino-w-thia-w-methyl-w-adenosylcarboxylic acid attached via the w-methyl carbon; Z1,Z2 = =O, NHR2, CH2R2 or NR2OH provided that Z1 and Z-2 are not both =O; R2 = a group selected from: (a) H; (b) 1-6C alkyl, 2-6C alkenyl or 1-6C alkoyl each having 0-2 substituents selected from Br, Cl, epoxy or acetoxy; (c) an aryl group selected from a 1-2 ring carbocycle and a 1-2 ring heterocycle wherein the aryl group contains 0-2 substituents selected from CH2L and COCH2L where L is Br, Cl, epoxy or acetoxy; (d) a 4-8C a-amino carboxylic acid attached via the w-carbon; (e) CO2H, NHOH, SO3H, NO2, OP(=O)(OH)(OJ) or -P(=O)(OH)(OJ) wherein j I H, 1-6C alkyl, 2-6C alkenyl or aryl and wherein B is optionally connected to the N via a linker selected from 1-2C alkyl, 2C alkenyl or 1-2 C alkoyl; (f) D-E where D is 1-3C alkyl, 2-3C alkenyl, 1-3C alkoyl, aryl or aroyl and E is (PO3)nNMP where n is 0-2 and NMP is ribonucleotide monophosphate connected via the 5'-phosphate, 3'-phosphate or the aromatic ring of the base: -(P(=O)(OCH3)(O))m-Q where m is 0-3 and Q is a ribonucleoside connected via the ribose or the aromatic ring of the base; and an aryl group containing 0-3 substituents selected from Cl, Br, epoxy, acetoxy, OG, -C(=O)G or CO2G where G is 1-6C alkyl, 2-6C alkenyl or 1-6C alkoyl and wherein E is attached to any point to D and if D is alkyl or alkenyl, D is connected at either or both ends by an amide linkage; or (g) E wherein if E is aryl may be connected by an amide linkage; Wherein the following conditions may apply: (a) if R1 and at least one R2 groups are present, R1 may be connected by a single or double bond to an R2 group to form a 5-7 member cycle; (b) if two R2 groups are present, they may be connected by a single or double bond to form a 4-7 member cycle; (c) if R1 is present and Z1 or Z2 is selected from NHR2, CH2R2 or NR2OH, then R1 may be connected by a single or double bond to the C or N of either Z1 or Z2 to form a 4-7 member cycle. The neuroprotective agent is selected from approved drugs for the **treatment** or prevention of neurodegenerative diseases, inhibitors of glutamate excitotoxicity, growth factors, nitric oxide synthase inhibitors, cyclooxygenase 2 inhibitors, aspirin, ICE inhibitors, neuroimmunophilis, N-acetylcysteine, antioxidants, lipoic acid, vitamins cofactors and coQ10.

ACTIVITY - Nervous system modulator.

USE - The composition acts synergistically to modulate a nervous system disease e.g. neuropathies, Alzheimer's disease, Parkinson's disease, Huntington's disease, **amyotrophic** lateral sclerosis, motor neuron disease, traumatic nerve injury, multiple sclerosis, acute disseminated encephalomyelitis, acute necrotizing hemorrhagic leukoencephalitis, dysmyelination disease, mitochondrial disease, migrainous disorder, bacterial infection, fungal infection, stroke, aging, dementia, peripheral nervous system diseases and mental disorders such as depression and schizophrenia.

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(FILE 'HOME' ENTERED AT 16:31:51 ON 17 APR 2006)

FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT 16:32:30 ON 17 APR 2006

L1 338 TREAT? (S) AMYOTROPIC  
L2 2 CREATINE AND L1  
L3 2 DUP REM L2 (0 DUPLICATES REMOVED)  
L4 387 TREAT? AND AMYOTROPIC  
L5 8 CREATINE AND L4  
L6 6 DUP REM L5 (2 DUPLICATES REMOVED)  
L7 5 L6 NOT L3

=> d his

(FILE 'HOME' ENTERED AT 16:31:51 ON 17 APR 2006)

FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT  
16:32:30 ON 17 APR 2006

L1 338 TREAT? (S) AMYOTROPIC  
L2 2 CREATINE AND L1  
L3 2 DUP REM L2 (0 DUPLICATES REMOVED)  
L4 387 TREAT? AND AMYOTROPIC  
L5 8 CREATINE AND L4  
L6 6 DUP REM L5 (2 DUPLICATES REMOVED)  
L7 5 L6 NOT L3

=> log off y  
STN INTERNATIONAL LOGOFF AT 16:39:05 ON 17 APR 2006